

Remarks:

The above-identified patent application is a reissue application based upon U.S. Patent No. 5,977,873. Claims 1-15 of the '873 patent and reissue claims 16-29 remain for consideration in this application along with newly added claims 30-36.

Applicant has amended claims 16, 18, and 23 by replacing the terms "switch-closed" and "switch-open," which describe the orientation of the ferromagnetic body with the switch elements, with the terms "first switch" and "second switch," respectively. MPEP §2173.05(d) states that "applicants are given a great deal of latitude in how they choose to define their invention so long as the terms and phrases used define the invention with a reasonable degree of clarity and precision." Applicant submits that the amended phrases do indeed define the invention with a reasonable degree of clarity and precision and are simply an alternate method of describing the relative orientation of the ferromagnetic body and switch elements.

Newly added independent claim 30 is similar in many respects to claim 16, the most notable distinction being the manner in which the "body" and its relationship to the switch elements are described. Claim 30 describes the body as shiftable and movable between first and second switch positions using a magnetic field, depending upon the positions of the members relative to each other. Support for new claims 30-36 is found in the same locations in the specification as for claim 16 (see Statement of Status and Support for Claims filed with the reissue application) and may also be found in Figure 2. Dependent claims 31-36 further limit claim 30 and are essentially similar as previous dependent claims currently pending in the application, and therefore are fully supported by the specification.

The Examiner rejected claims 16-29 under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. More specifically, the Examiner stated that it was unclear how to get the magnetic field to shift the ferromagnetic body in a switch-closed or switch-open orientation by only a single magnetic assembly mounted in the first member as claimed in independent claims 16 and 23.

Firstly, it is the Applicant's position that the limitations of claim 16 do not specifically recite that any magnetic assemblies are located within either the first or second members. The claim language reads upon using a magnetic field to shift the ferromagnetic body into a switch-closed orientation when the members are in close position, and also providing for magnetically shifting the body to a switch-open orientation when the members are in open position. Claim 16 does not even mention magnetic assemblies, let alone a single magnetic assembly mounted in the first member as the Examiner purports. In addition, nowhere does the claim recite that the same magnetic field performs both operations depending upon the position of the members. Therefore, any reading that claim 16 requires that one, single magnet provides the magnetic field used to shift the body to a switch-closed orientation and for magnetically shifting the body to a switch-open orientation is erroneous. No such limitation exists. Applicant respectfully requests that the §112, second paragraph rejection as to claim 16 be withdrawn.

Secondly, with respect to claim 23, Applicant believes that the Examiner is misinterpreting the grouping of claimed elements. The magnetic switch apparatus of claim 23 comprises two basic elements: a switch assembly and a magnetic assembly. Applicant has amended claim 23 to make this distinction more apparent. The switch assembly is for mounting to the first member and

includes a first switch element and a second switch element in spaced relationship to the first. The magnetic assembly includes a ferromagnetic body and is operable to shift the ferromagnetic body in a switch-closed orientation to a switch-open orientation depending upon the position of the members relative to each other. The claim does not contain the limitation that a magnetic field is provided by a single assembly mounted in the first member as the Examiner purports, nor does the claim contain the limitation that the magnetic assembly is mounted in the first member. Only the switch assembly is for mounting to the first member. The description of the preferred switch apparatus set forth below notes with particularity the above-delineated limitations of claim 23.

In the preferred switch embodiment, switch apparatus comprises a switch assembly 16 which is mounted within the door frame 12, and a magnet assembly. The switch assembly 16 includes a first switch element 20 and a second switch element 22. The magnet assembly includes ferromagnetic body 24, retraction magnet 26 and operating magnet 18. The ferromagnetic body 24 and retraction magnet 26 are installed in the door frame 12 and operating magnet 18 is installed in the door 14. When the door 14 is closed, the ferromagnetic body 24 is in simultaneous contact with both switch elements 20, 22. However, as illustrated in Fig. 2 by the dashed lines, when the door is open, the retraction magnet 26 magnetically shifts the ferromagnetic body upwardly and out of contact with switch element 22. It should now be apparent that the preferred embodiment magnet assembly is not entirely mounted in the first member, nor is it so recited in claim 23.

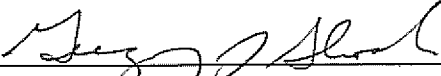
Applicant respectfully requests that the §112, second paragraph rejection as to claim 23 be withdrawn.

In view of the foregoing, a Notice of Allowance appears to be in order and such is courteously solicited.

Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 19-0522.

Respectfully submitted,

HOVEY WILLIAMS LLP

By 

Gregory J. Skoch, Reg. No. 48,267

2405 Grand Boulevard, Suite 400

Kansas City, Missouri 64108

816/474-9050

ATTORNEYS FOR APPLICANT(S)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims:

The following claims were amended:

16. (Amended) A method of detecting the relative movement between first and second members from a close position where the members are adjacent, and an open position where the members are separated, said method comprising the steps of:

installing a switch assembly on said first member, said switch assembly including a first elongated switch element, a second switch element disposed in spaced relationship to the first element and a ferromagnetic body located adjacent the first and second switch elements;

when said members are in said close position, using a magnetic field of sufficient strength to [shift]maintain the ferromagnetic body in a [switch-closed] first switch orientation in simultaneous contact with said first and second switch elements;

in response to relative movement of the members from said close to said open position, magnetically shifting said ferromagnetic body to a [switch-open] second switch orientation out of contact with said second switch element; and

[using an alarm control to generate] generating a signal when said ferromagnetic body is shifted.

18. (Amended) The method of claim 16, said first switch element being in a generally upright orientation, with said second switch element spaced below the first switch element, said maintaining step comprising the step of maintaining the ferromagnetic body in a lower [switch-

closed] first switch orientation, said magnetic shifting step comprising the step of shifting the ferromagnetic body upwardly to said [switch-open] second switch orientation.

23. (Amended) A magnetic switch apparatus for detecting relative movement between first and second members from a close position where the members are adjacent, and an open position where the members are separated, said apparatus comprising a switch assembly for mounting to the first member, including a first, elongated switch element [,] and a second switch element in spaced relationship to said first switch element, and a magnet assembly including a ferromagnetic body adjacent said first and second switch elements, said assembly operable to shift said ferromagnetic body in a [switch-closed] first switch orientation in simultaneous contact with said first and second switch elements when said members are in said close position, and to shift said ferromagnetic body to a [switch-open] second switch orientation out of contact with said second switch element in response to relative movement of the members to said open position.

The following claims have been added:

30. A method of detecting the relative movement between first and second members from a close position where the members are adjacent, and an open position where the members are separated, said method comprising the steps of:

installing a switch assembly on said first member, said switch assembly including a first elongated switch element, a second switch element disposed in spaced relationship to the first element, and a shiftable body movable between a first position in

simultaneous contact with said first and second switch elements, and a second position out of said simultaneous contact;
when said members are in said close position, using a magnetic field of sufficient strength to maintain said body in one of said first and second positions;
in response to movement of the members from said close to said open position, magnetically moving the body to the other of said first and second positions; and
generating a signal when said body is moved.

31. The method of claim 30, said magnetic moving step comprising the steps of using a magnetic field developed between said body and a first cooperable component on said first member.

32. The method of claim 31, said first component comprising a ring-shaped magnet.

33. The method of claim 30, said magnetic field of sufficient strength being developed between said body and a second cooperable component on said second member.

34. The method of claim 33, said second component comprising a magnet mounted on said second member.

35. The method of claim 30, said first switch element being in a generally upright orientation, with said second switch element spaced below the first switch element, said maintaining step comprising the step of maintaining the ferromagnetic body in a lower first switch orientation.

said magnetic moving step comprising the step of shifting the ferromagnetic body upwardly to said second switch orientation.

36. The method of claim 1, said body being ferromagnetic and generally spherical.